

ABSTRACT

An immersion exposure liquid which exhibits a high refractive index, prevents elution and dissolution of a photoresist film or its upper layer film component, and reduces defects during formation of a resist pattern when used in an immersion exposure method, and an immersion exposure method using the immersion exposure liquid. The immersion exposure liquid is used for an immersion exposure device or an immersion exposure method in which a substrate is exposed through a liquid provided between a lens of a projection optical system and the substrate, the immersion exposure liquid being liquid in an operating temperature range of the immersion exposure device and including an alicyclic hydrocarbon compound or a cyclic hydrocarbon compound containing a silicon atom in the ring structure.